SEQUENCE LISTING

<110> F. Hoffmann-La Roche AG

<120> IL-15 Antagonists

<130> Case21909

<140> PCT/CH03/00666

<141> 2003-10-13

<150> EP02022869.8

<151> 2002-10-14

<160> 30

<170> PatentIn version 3.1

<210> 1

<211> 114

<212> PRT

<213> human

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Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
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Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
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Thr Ser

<210> 2

<211> 231

<212> PRT

<213> human

<400> 2

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Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
35 40 45

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
50 55 60

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
65 70 75 80

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
85 90 95

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
100 105 110

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
115 120 125

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
130 135 140

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
145 150 155 160

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
165 170 175

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
180 185 190

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
195 200 205

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
210 215 220

Leu Ser Leu Ser Pro Gly Lys
225 230

<210> 3

<211> 232

<212> PRT

<213> mouse

<400> 3

Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro Ala
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Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr Cys Val Val
35 40 45

Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val
50 55 60

Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu Asp
65 70 75 80

Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His Gln
85 90 95

Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp
100 105 110

Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser Val
115 120 125

Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu Glu Met Thr
130 135 140

Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu
145 150 155 160

Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn Tyr
165 170 175

Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr
180 185 190

Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser Tyr
195 200 205

Ser Cys Ser Val Val His Glu Gly Leu His Asn His His Thr Thr Lys
210 215 220

Ser Phe Ser Arg Thr Pro Gly Lys
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<213> artificial sequence

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<223> fusion protein

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Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser Asp Pro Lys Ser Ala Asp Lys Thr His Thr Cys Pro Pro Cys
115 120 125

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
130 135 140

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
145 150 155 160

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
165 170 175

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
180 185 190

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
195 200 205

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
210 215 220

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
225 230 235 240

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
245 250 255

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
260 265 270

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
275 280 285

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
290 295 300

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
305 310 315 320

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
325 330 335

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
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<211> 347

<212> PRT

<213> artificial sequence

<220>

<223> fusion protein

<400> 5

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Thr Glu Asp Leu Ile
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Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys
115 120 125

Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
130 135 140

Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr
145 150 155 160

Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser
165 170 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His
180 185 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile
195 200 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn
210 215 220

Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys
225 230 235 240

Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu
245 250 255

Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe
260 265 270

Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu
275 280 285

Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr
290 295 300

Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg
305 310 315 320

Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn His His
325 330 335

Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
340 345

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<211> 341

<212> DNA

<213> human

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aagtgctttc tcttggagtt acaagttatt tcacttgagt ccggagatgc aagtattcat 180
gatacagtag aaaatctgat catcctagca aacaacagtt tgtcttctaa tgggaatgta 240
acagaatctg gatgcaaaga atgtgaggaa ctggaggaaa aaaatattaa agaatttttg 300
cagagttttg tacatattgt ccaaatgttc atcaacactt c 341

<210> 7

<211> 697

<212> DNA

<213> human

<400> 7
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cctgaggtca cgtgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac 180
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac 240
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aaggagtaca agtgcaaggt ctccaacaaa gccctcccag cccccatcga gaaaaccatc 360
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgccccc atcccgggat 420
gagctgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac 480
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acgcagaaga gcctctccct gtctccgggt aaatgat 697

<210> 8
<211> 700
<212> DNA
<213> mouse

<400> 8
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gaagagatga ctaagaaaca ggtcactctg acctgcatgg tcacagactt catgcctgaa 480
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ccagtcctgg actctgatgg ttcttacttc atgtacagca agctgagagt ggaaaagaag 600
aactgggtgg aaagaaatag ctactcctgt tcagtggtcc acgagggtct gcacaatcac 660
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<211> 1047
<212> DNA
<213> artificial sequence

<220>
<223> DNA coding for fusion protein

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aagtgctttc tcttggagtt acaagttatt tcacttgagt ccggagatgc aagtattcat 180
gatacagtag aaaatctgat catcctagca aacaacagtt tgtcttctaa tgggaatgta 240
acagaatctg gatgcaaaga atgtgaggaa ctggaggaaa aaaatattaa agaatttttg 300
cagagttttg tacatattgt ccaaatgttc atcaacactt cggatcccaa atctgctgac 360
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ctcttccccc caaaacccaa ggacaccctc atgatctccc ggacccctga ggtcacgtgc 480
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gtggtcagcg tcctcaccgt cctgcaccag gactggctga atggcaagga gtacaagtgc 660
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gagagcaatg ggcagccgga gaacaactac aagaccacgc ctcccgtgct ggactccgac 900
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tccctgtctc cgggtaaatg atctaga 1047

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<211> 1045
<212> DNA
<213> artificial sequence

<220>
<223> DNA for fusion protein
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attgatgcta ctttatatac ggaaagtgat gttcacccca gttgcaaagt aacagcaatg 120
aagtgctttc tcttggagtt acaagttatt tcacttgagt ccggagatgc aagtattcat 180
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acagaatctg gatgcaaaga atgtgaggaa ctggaggaaa aaaatattaa agaatttttg 300
cagagttttg tacatattgt ccaaatgttc atcaacactt cggatcccag agggcccaca 360
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aacgtggaag tacacacagc tcagacacaa acccatagag aggattacaa cagtactctc 600
cgggtggtca gtgccctccc catccagcac caggactgga tgagtggcaa ggagttcaaa 660
tgcaaggtca acaacaaaga cctcccagcg cccatcgaga gaaccatctc aaaacccaaa 720
gggtcagtaa gagctccaca ggtatatgtc ttgcctccac cagaagaaga gatgactaag 780
aaacaggtca ctctgacctg catggtcaca gacttcatgc ctgaagacat ttacgtggag 840
tggaccaaca acgggaaaac agagctaaac tacaagaaca ctgaaccagt cctggactct 900
gatggttctt acttcatgta cagcaagctg agagtggaaa agaagaactg ggtggaaaga 960
aatagctact cctgttcagt ggtccacgag ggtctgcaca atcaccacac gactaagagc 1020
ttctcccgga ctccgggtaa atgag 1045

<210> 11
<211> 63
<212> DNA
<213> human

<400> 11
atggagacag acacactcct gctatgggta ctgctgctct gggttccagg ttccactggt 60
gac 63

<210> 12
<211> 72
<212> DNA
<213> human

<400> 12
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tcctgcctcg ga 72

<210> 13
<211> 75
<212> DNA
<213> human

<400> 13
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gcagccactc aggga 75

<210> 14

<211> 60

<212> DNA

<213> human

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<211> 68

<212> DNA

<213> human

<400> 15
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ggctcgct 68

<210> 16

<211> 40

<212> DNA

<213> human

<400> 16
atgtcttcat tttgggctgt ttcagtgcag ggcttcctaa 40

<210> 17

<211> 144

<212> DNA

<213> human

<400> 17
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ctaaacagtc attttctaac tgaagctggc attcatgtct tcattttggg ctgtttcagt 120
gcagggcttc ctaaaacaga agcc 144

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<211> 74

<212> DNA

<213> artificial sequence

<220>

<223> oligonucleotide

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tccactggtg acaa 74

<210> 19

<211> 74

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<213> artificial sequence

<220>

<223> oligonucleotide

<400> 19
ccagttgtca ccagtggaac ctggaaccca gagcagcagt acccatagca ggagtgtgtc 60
tgtctccatg gtgg 74

<210> 20

<211> 36

<212> DNA

<213> artificial sequence

<220>

<223> oligonucleotide

<400> 20
ctgggtgaat gtaataagtg atttgaaaaa aattga 36

<210> 21

<211> 37

<212> DNA

<213> artificial sequence

<220>

<223> oligonucleotide

<400> 21
gatcttcaat ttttttcaaa tcacttatta cattcac 37

<210> 22

<211> 111

<212> DNA

<213> artificial sequence

<220>

<223> oligonucleotide

<400> 22
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tccactggtg acaactgggt gaatgtaata agtgatttga aaaaaattga a 111

<210> 23

<211> 111

<212> DNA

<213> artificial sequence

<220>

<223> oligonucleotide

<400> 23
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gaccactgaa gacccactta cattattcac taaacttttt ttaacttcta g 111

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<211> 347

<212> PRT

<213> human

<400> 24

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Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Asp Ser Phe Val His Ile Val Asp Met Phe Ile Asn
100 105 110

Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys
115 120 125

Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
130 135 140

Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr
145 150 155 160

Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser
165 170 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His
180 185 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile
195 200 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn
210 215 220

Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys
225 230 235 240

Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu
245 250 255

Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe
260 265 270

Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu
275 280 285

Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr
290 295 300

Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg
305 310 315 320

Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn His His
325 330 335

Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
340 345

<210> 25

<211> 347

<212> PRT

<213> artificial sequence

<220>

<223> mutated Fc

<400> 25

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20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Asp Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys
115 120 125

Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
130 135 140

Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr
145 150 155 160

Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser
165 170 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His
180 185 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile
195 200 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn
210 215 220

Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys
225 230 235 240

Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu
245 250 255

Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe
260 265 270

Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu
275 280 285

Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr
290 295 300

Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg
305 310 315 320

Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn His His
325 330 335

Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
340 345

<210> 26

<211> 1108

<212> DNA

<213> human

<400> 26
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catattgatg ctactttata tacggaaagt gatgttcacc ccagttgcaa agtaacagca 180
atgaagtgct ttctcttgga gttacaagtt atttcacttg agtccggaga tgcaagtatt 240
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gtcttcatct tccctccaaa gatcaaggat gtactcatga tctccctgag ccccatagtc 540
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ctccgggtgg tcagtgccct ccccatccag caccaggact ggatgagtgg caaggagttc 720
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agcttctccc ggactccggg taaatgag 1108

<210> 27
<211> 1108
<212> DNA
<213> artificial sequence

<220>
<223> nucleic acid for mutated Fc

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catattgatg ctactttata tacggaaagt gatgttcacc ccagttgcaa agtaacagca 180
atgaagtgct ttctcttgga gttacaagtt atttcacttg agtccggaga tgcaagtatt 240
catgatacag tagaaaatct gatcatccta gcaaacaaca gtttgtcttc taatgggaat 300
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